

Sixth Semester B.Sc. Degree Examination, April/May 2019

(CBCS Scheme)

Botany

Paper VII – PLANT PHYSIOLOGY AND METABOLISM

Time : 3 Hours]

[Max. Marks : 90

Instructions to Candidates :

- 1) Answer All Parts.
- 2) Draw labelled diagrams wherever necessary.

PART – A

- I. Answer any **TEN** of the following : (10 × 2 = 20)
1. What are Anti transpirants? Give an example.
 2. What are trace elements? Give an example.
 3. Differentiate between DP and DPD.
 4. Draw a neat labelled diagram of Mitochondrion.
 5. Mention any two differences between PSI and PSII.
 6. What are coenzymes? Give an example.
 7. Mention any two differences between C₃ plants and C₄ plants.
 8. What is Abscission? Mention the hormone responsible for it.
 9. What is transamination? Mention its significance.
 10. What is Florigen concept? Mention its significance.
 11. Define Seismonasty with suitable plant example.
 12. What is seed dormancy? Mention any two causes.

PART – B

II. Answer any **SIX** of the following :

(6 × 5 = 30)

13. Explain factors affecting on transpiration.
14. Describe the role and deficiency symptoms of phosphorus.
15. Explain Cyclic photophosphorylation.
16. Explain the process of carbon fixation in C_4 plants.
17. Explain Terminal oxidation.
18. List out the properties of enzymes.
19. Explain the mechanism of vernalization.
20. Explain phototropism.

PART – C

III. Answer any **FOUR** of the following :

(4 × 10 = 40)

21. Explain Active absorption of water.
22. Describe citric acid cycle.
23. Give an account on Biological Nitrogen fixation.
24. Explain the role and applications of Auxins Gibberellins in Agriculture and Horticulture.
25. Explain :
 - (a) Black man's limiting factor
 - (b) Emerson's effect
26. Explain :
 - (a) Enzyme inhibition
 - (b) Phytochrome